

CLAIMS

What is claimed is:

10 1. An automatic cooking and vending machine, for preparing, dispensing, and vending a plate of cooked food to a paying customer who has placed an order for a plate of cooked food, comprising:

15 a housing having an interior, a top, a bottom, two opposing sides, a front, a rear, and a substantially centrally located horizontal platform, said housing having an access door which opens to dispense the plate of cooked food to the customer, said housing enclosing:

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two gas burners;

a water sprinkler;

a motorized tracking mechanism having two handles,  
each having a substantially hemispherical pot  
attached thereunto, for shuttling each of the pots  
from a cooking position wherein the pot is  
5 sandwiched between the burners, to an inverted  
washing position wherein the pot is positioned  
just above the sprinkler;

10 a plate dispensing assembly, comprising a plate  
compartment for holding a plurality of empty  
plates, and a plate dispensing mechanism for  
shuttling an empty plate from the plate  
compartment to a position underneath the pot which  
is in the cooking position, for accepting the  
15 cooked food therefrom after the pot has been  
inverted by the tracking mechanism, and then,  
through the access door;

20 a quantity measuring device for measuring  
quantities of different foods prior to the release  
of the foods into the cooking pot in the cooking  
position;

a stirrer assembly, which extends into each of the cooking pots, for stirring the food while it is cooking; and

5 a computer for controlling all of the components of the machine, said computer having an associated touch screen for selectively displaying a menu and for placing the order for cooked food, a credit card scanning slot for scanning an existing credit 10 card to pay for the order, and a printing slip outlet for printing details of the order; and

a food storage compartment, having a top and a bottom, wherein the bottom of the food storage compartment is 15 supported upon the platform, said food storage compartment for selectively containing a plurality of different food storage containers, each of which contains food which is selectively emptied into the pot in the cooking position.

20 2. The automatic cooking and vending machine as recited in claim 1, wherein the front of the housing has a transparent window for allowing the customer to view the cooking process.

25 3. The automatic cooking and vending machine as recited in

claim 2, wherein one of the pots is capable of being selectively washed, even as the other pot is being used for cooking food.

5 4. The automatic cooking and vending machine as recited in claim 3, wherein the machine has a rotatable gear wheel interposed between the bottom of the food storage compartment and the platform, wherein said gear wheel selectively rotates under the direction of the computer,  
10 wherein the gear wheel has a top surface and a bottom surface, wherein the quantity measuring device is attached to the bottom surface of the gear wheel, and wherein the bottom surface of the gear wheel has conveyor tubes extending downwardly therefrom, for directing food from the  
15 food storage containers into the cooking pot selectively positioned between the burners.

5. The automatic cooking and vending machine as recited in claim 4, wherein the gear wheel has openings extending fully therethrough for conduiting food from the various food storage containers into the conveyor tubes, wherein each of the storage containers has a bottom which is selectively positioned above one of the openings in order to allow food from the storage containers to be emptied into the cooking  
25 pot, and wherein under the direction of the computer, the

gear wheel selectively rotates and stops at a plurality of different positions, in order that the openings extending through the gear wheel will be selectively positioned directly below the food containers, in order to allow the 5 requested foods to enter the conveyor tubes.

6. The automatic cooking and vending machine as recited in claim 5, wherein the plate dispenser mechanism has a mechanical hand having an associated motor, mechanical 10 fingers, a mechanical arm, a motor associated with mechanical arm, and a lattice board for selectively supporting one of the plates, wherein initially, the mechanical hand is positioned under the lattice board at a position underneath the plate storage cylinder, and wherein 15 upon instruction by the computer, the mechanical hand rises up, driven by the motor, through the lattice board to reach the plate storage cylinder, tightens the fingers to get hold of one of the plates, and pulls the plate down to the surface of the lattice board, and wherein subsequently, the 20 fingers are loosened, and the mechanical hand is lowered to a position below the lattice board.

7. The automatic cooking and vending machine as recited in claim 6, wherein the lattice board has an elongated lattice 25 board arm which attaches the lattice board to a motor, for

moving the lattice board to the plate dispenser for receiving an empty plate, to the cooking pot for filling the empty plate with cooked food, and to the access door for dispensing the plate of cooked food to the customer.

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8. The automatic cooking and vending machine as recited in claim 7, further comprising a chimney extending from the interior of the housing for exhausting waste gases produced during the cooking process.

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9. The automatic cooking and vending machine as recited in claim 8, wherein the bottom of each of the conveyor tubes has a shutter capable of selectively opening in order to release a quantity of food from the storage containers into 15 the cooking pot.

10. The automatic cooking and vending machine as recited in claim 9, wherein the bottom of the housing has a drain for selectively draining away the water produced within the 20 housing by the sprinkler.

11. The automatic cooking and vending machine as recited in claim 10, wherein the window has an associated windshield wiper mounted inside the housing for wiping the window.

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12. The automatic cooking and vending machine as recited in  
claim 11, wherein the storage containers are transparent,  
thereby allowing the quantity of food remaining in each of  
the containers to be visually determined, and wherein the  
5 storage containers each have a top which may be selectively  
opened to fill the storage containers.

13. The automatic cooking and vending machine as recited in  
claim 12, wherein the storage containers are selectively  
10 removable from the food storage compartment in order that  
they may be replaced or refilled when they have been  
substantially depleted of their contents.

14. The automatic cooking and vending machine as recited in  
15 claim 13, wherein the chimney extends concentrically through  
the center of the food storage compartment, from the bottom  
to the top of the food storage compartment.

15. The automatic cooking and vending machine as recited in  
20 claim 14, wherein the chimney has a segment extending  
vertically upward from the top of the food compartment which  
is capable of being selectively moved, in order to allow  
ready access to the various storage containers, in order  
that they may be refilled or replaced.

16. The automatic cooking and vending machine as recited in claim 15, wherein the gas burners are moved in proximity to the cooking pot when heating of the contents of the pot is required, and wherein when cooking is completed, the gas  
5 burners are moved away from the cooking pot in a downward angle to allow the cooking pot to turn sideways to empty the contents of the pot onto the empty plate, prior to moving to the washing position.

10 17. The automatic cooking and vending machine as recited in claim 16, wherein the stirrer assembly comprises a long rod, a short rod, a spatula handle, and a spatula blade, wherein the spatula blade turns the food upside down in the cooking pot in order to ensure uniform cooking.

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18. The automatic cooking and vending machine as recited in claim 17, wherein, during the process of cooking, the long rod transfers rotation from the handle, through the small rod, and to the blade, so that the blade turns inside the  
20 cooking pot, as the small rod sways sideward in a 90 degree angle, so that all the food in the cooking pot can be stirred by the spatula, wherein the selectively angled spatula handle has an innermost portion and an outermost portion, wherein the blade is hingeably attached to the  
25 outermost portion of the spatula handle, and wherein the

long rod tilts downward into the center of the cooking pot in order to ensure the spatula does not spread vegetables, meat and ingredients out of the cooking pot.

- 5 19. The automatic cooking and vending machine as recited in claim 17, wherein the bottom of the housing has a plurality of ventilation windows extending fully therethrough, for allowing air to enter the interior of the housing.
- 10 20. A method of preparing, dispensing, and vending a plate of cooked food to a customer, using an automatic cooking and vending machine having a housing having a platform and an access door, said housing enclosing two gas burners, a water sprinkler, a motorized tracking mechanism having two pots
- 15 each having an associated stirrer assembly attached thereunto, a plate dispensing assembly having a cylindrical plate compartment for holding a plurality of empty plates, and having a plate dispensing mechanism, and a computer having an associated touch screen for selectively displaying
- 20 a menu having a plurality of different cooked foods, said computer also having a credit card scanning slot, said computer for controlling each of the components of the machine, said automatic cooking and vending machine having a food storage compartment which is supported upon the
- 25 platform, and a plurality of different food storage

containers contained within the food storage compartment, wherein the machine has a rotatable gear wheel interposed between the food storage compartment and the platform, wherein the gear wheel selectively rotates under the 5 direction of the computer, wherein the gear wheel has a top surface, a bottom surface, openings extending fully from the top surface to the bottom surface, and an attached quantity measuring device under the control of the computer, a plurality of conveyor tubes extending from the bottom 10 surface of the gear wheel, for directing food from the food storage containers into the cooking pot selectively positioned between the burners, said conveyor tubes having a bottom having a shutter, said method comprising the steps of:

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placing an order for a plate of cooked food by inserting a credit card into the credit card scanning slot, and by using the touch screen of the computer to request a particular plate of cooked food from the menu;

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automatically deducting the cost of the food from the credit card by the computer;

25 directing the tracking mechanism by the computer to position a pot between the burners;

directing the gear wheel by the computer to rotate to a position wherein an appropriate opening of the gear wheel is positioned below an appropriate food container;

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measuring with the quantity measuring device the requisite quantities of food from the food containers, under the direction of the computer;

10 opening the shutters at the bottom of the conveyor tubes to release said quantities of food into the cooking pot;

activating the gas burners to cook the food within the  
15 pot;

stirring the food within the pot with the stirrer assembly as it is cooking;

20 positioning an empty plate underneath the cooking pot by the plate dispenser mechanism, for accepting the cooked food thereupon after the food has been cooked;

25 moving the plate out of the access door by the plate dispenser mechanism for receipt by the customer;

moving, with the tracking mechanism, the pot which has been used for cooking to an inverted position above the sprinkler, where it is washed subsequent to being used once 5 again for cooking; and

moving, with the tracking mechanism, the other pot upward to a location in proximity to the burners, where it is ready to be used as the next cooking pot, even as the pot 10 which has been used for cooking moves downward to be washed.